

It is respectfully submitted that Schwaderer et al., as relied upon by the Examiner, does not disclose or suggest these claims.

Claim 1 of the present application calls for a method for communication between an application program and a network device driver program through intermediate structure software, including: a. supplying of application data units from the application program to a first program object being part of the intermediate structure software; b. performing of first functions of the first program object on the application data units; c. supplying of resulting first data units from the first program object to a second program object being part of the intermediate structure software; d. performing of second functions of the second program object on the first data units; e. supplying of the resulting second data units to the network device driver program. In claim 1, supplying data units between program objects is accomplished by passing references pointing to memory locations of the data units.

In Section 5 of the Office Action, the Examiner states that Schwaderer et al. “does not disclose passing references.” Accordingly, it is respectfully submitted that Schwaderer et al., as relied upon by the Examiner, does not anticipate or suggest claim 1, and so also does not anticipate or suggest claims 2-14 and 19-21 that depend therefrom.

It also submitted that Schwaderer et al. also does not anticipate or suggest claims 15 and 18 for similar reasons, as well as claims 16 and 17 that depend from claim 15.

Based upon the foregoing, it is believed that claims 1-2, 5-8, 10-12, and 15-18 are not anticipated by the teachings of Schwaderer et al. as relied upon by the Examiner. Accordingly, it

is believed that the Examiner's rejection of claims 1-2, 5-8, 10-12, and 15-18 based upon 35 U.S.C. §102(b) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

In addition, new claims 20 and 21 depend from claim 1, through claims 10 and 12, respectively. Claim 20 calls for the method of claim 10 wherein at least two of the data units of at least one service data unit are stored in non-contiguous portions of memory. Schwaderer et al., as relied upon by the Examiner, does not appear to address storing at least two of the data units of at least one service data unit in non-contiguous portions of memory.

Claim 21 calls for the method of claim 12, wherein the specialized execution environment forms a plurality of network protocol layers and the first program object and the second program object are in respective network protocol layers. While the Examiner appears to contend that the data I/O calls 45 and control I/O calls 47 of Fig. 3 in Schwaderer et al. disclose a specialized execution environment, it does not appear that these calls, were they to form a specialized execution environment, describe a specialized execution environment that forms a plurality of network protocol layers. Similarly, it does not appear that Schwaderer et al., as relied upon by the Examiner, describes that the first program object and the second program object are in respective network protocol layers.

Accordingly, it is respectfully submitted that Schwaderer et al. does not anticipate claims 20 and 21.

In Section 5 of the Office Action, the Examiner has rejected claim 3 under 35 U.S.C.

§103(a) as being unpatentable over Schwaderer et al. (U.S. Patent 6,393,496) in view of Fishler et al. (U.S. Patent 5,954,794). It is respectfully submitted that Schwaderer et al. in view of Fishler et al., as relied upon by the Examiner, does not disclose or suggest claim 3.

Claim 3 of the present application calls for the method of claim 1 wherein the memory location for an application data unit is the same memory location as the memory location for the corresponding first data unit and for the memory location for the corresponding second data unit. Accordingly, the application program provides a reference to a memory location storing the application data unit to the first program object. When the first program object provides a reference to the memory location of the resulting first data unit, the memory location of the first data unit is the same memory location as that of the application data unit. Similarly, the memory location of the second data unit is the same as that of the application data unit and that of the first data unit. The same memory location is used for the application data unit, the first data unit, and the second data unit.

The Examiner does not rely upon Schwaderer et al. to address passing references and Fishler et al., as referenced by the Examiner, does not appear to disclose or suggest passing references to the same memory location for data units as called for in claim 3. Accordingly, it is respectfully submitted that Schwaderer et al. and Fishler et al., as referenced by the Examiner do not disclose or suggest claim 3.

Based upon the foregoing, it is believed that claim 3 is not anticipated by nor rendered obvious by the teachings of Schwaderer et al. and Fishler et al., as relied upon by the Examiner.

Accordingly, it is believed that the Examiner's rejection of claim 3 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

Were the Examiner to apply the combination of Schwaderer et al. and Fishler et al., as referenced in Section 5 of the Office Action, to claim 1, it does not appear that this combination of Schwaderer et al. and Fishler et al. would disclose or suggest claim 1. As discussed above, claim 1 calls for passing references to memory locations storing data units between program objects in an intermediate software structure. Though the Examiner contends that Fishler et al. discloses passing references, it does not appear that Schwaderer et al. discloses program objects in an intermediate software structure to pass the references of Fishler et al. In Section 1 of the Office Action, the Examiner contends that reference 20 of Fig.3 in Schwaderer et al. discloses a first program object. However, it appears that reference 20 indicates the interactive television decoder (20) of Fig. 1 and Fig. 3 in Schwaderer et al. It does not appear that the interactive television decoder of Schwaderer et al. is a program object that is part of an intermediate software structure. Accordingly, it is respectfully submitted that the combination of Schwaderer et al. and Fishler et al., as referenced by the Examiner in Sections 1 and 5 of the Office Action, would not disclose or suggest claim 1.

In Section 6 of the Office Action, the Examiner has rejected claims 4, 13, and 19 under 35 U.S.C. §103(a) as being unpatentable over Schwaderer et al. (U.S. Patent 6,393,496) in view of Jardine (U.S. Patent 5,619,647). It is respectfully submitted that Schwaderer et al. in view of Jardine, as relied upon by the Examiner, does not disclose or suggest claims 4, 13, and 19.

As discussed above, it is respectfully submitted that Schwaderer et al. does not disclose or suggest claim 1, and so also does not disclose or suggest claims 4, 13, and 19 that depend therefrom. Furthermore, the Examiner does not appear to rely upon Jardine to disclose or suggest claim 1.

Based upon the foregoing, it is believed that claims 4, 13, and 19 are not anticipated by nor rendered obvious by the teachings of Schwaderer et al. and Jardine, as relied upon by the Examiner. Accordingly, it is believed that the Examiner's rejection of claims 4, 13, and 19 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

In Section 7 of the Office Action, the Examiner has rejected claim 9 under 35 U.S.C. §103(a) as being unpatentable over Schwaderer et al. (U.S. Patent 6,393,496) in view of Fishler et al. (U.S. Patent 5,954,794) and further in view of Tanenbaum ("Computer Networks"). It is respectfully submitted that this combination, as relied upon by the Examiner, does not disclose or suggest claim 9.

As discussed above, it is respectfully submitted that Schwaderer et al. and Fishler et al. do not disclose or suggest claim 1, and so also do not disclose or suggest claim 9 that depends therefrom. Furthermore, the Examiner does not appear to rely upon Tanenbaum to disclose or suggest claim 1.

Based upon the foregoing, it is believed that claim 9 is not anticipated by nor rendered obvious by the teachings of Schwaderer et al., Fishler et al., and Tanenbaum, as relied upon by

the Examiner. Accordingly, it is believed that the Examiner's rejection of claim 9 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

In Section 8 of the Office Action, the Examiner has rejected claim 14 under 35 U.S.C. §103(a) as being unpatentable over Schwaderer et al. (U.S. Patent 6,393,496) in view of Phillips et al. (U.S. Patent 6,289,393). It is respectfully submitted that the combination of Schwaderer et al. and Phillips et al., as relied upon by the Examiner, does not disclose or suggest claim 14.

As discussed above, it is respectfully submitted that Schwaderer et al. does not disclose or suggest claim 1, and so also does not disclose or suggest claim 14 that depends therefrom. Furthermore, the Examiner does not appear to rely upon Phillips et al. to disclose or suggest claim 1.

Based upon the foregoing, it is believed that claim 14 is not anticipated by nor rendered obvious by the teachings of Schwaderer et al. and Phillips et al., as relied upon by the Examiner. Accordingly, it is believed that the Examiner's rejection of claim 14 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

Conclusion

In view of the foregoing, entry of this Amendment, and the allowance of this application with Claims 1-21 is respectfully solicited.

In regard to the claims amended herein and throughout the prosecution of this application, it is submitted that these claims, as originally presented, are patentably distinct over the prior art of record, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicants' representative at the telephone number written below.

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned "**Version with Markings to Show Changes Made.**"

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The Abstract of the Disclosure has been rewritten as follows:

--The present invention relates to a method for communication between an application program and network device driver program through intermediate structure software, comprising the steps of:

- a. supplying of application data units from the application program to a first program object being part of the intermediate structure software;
- b. performing of first functions of the first program object on the application data units;
- c. supplying of resulting first data units from the first program object to a second program object being part of the intermediate structure software;
- d. performing of second functions of the second program object on the first data units;
- e. supplying of the resulting second data units to the network device driver program.

[The present invention also provides a system for communication between an application program and a network device driver program and vice versa through intermediate structure software, comprising:

- a. a first program object being part of the intermediate structure software and for performing of first functions on data units, said data units being transferred to and from the application program and data units being transferred to and from said first program object;
- b. a second program object being part of the intermediate structure software and for

performing of second functions on said data units, said data units being transferred to and from said second program object and data units being transferred to and from the network driver.]--

IN THE CLAIMS:

Claim 1 has been rewritten as follows:

--1. (Amended) Method for communication between an application program and a network device driver program through intermediate structure software, comprising the steps of:

- a. supplying of application data units from the application program to a first program object being part of the intermediate structure software;
 - b. performing of first functions of the first program object on the application data units;
 - c. supplying of resulting first data units from the first program object to a second program object being part of the intermediate structure software;
 - d. performing of second functions of the second program object on the first data units;
 - e. supplying of the resulting second data units to the network device driver program;
- wherein supplying data units between program objects is accomplished by passing references pointing to memory locations of the data units.--

Claim 3 has been rewritten as follows:

--3. (Amended) Method according to claim 1, wherein [supplying data units between program objects is accomplished by passing references pointing to memory locations of the data

units] the memory location for an application data unit is the same memory location as the memory location for the corresponding first data unit and for the memory location for the corresponding second data unit.--

Claim 15 has been rewritten as follows:

--15. (Amended) System for communication between an application program and a network device driver program and vice versa through intermediate structure software, comprising.

a. a first program object being part of the intermediate structure software and for performing of first functions on data units, said data units being transferred to and from the application program and data units being transferred to and from said first program object;

b. a second program object being part of the intermediate structure software and for performing of second functions on said data units, said data units being transferred to and from said second program object and data units being transferred to and from the network driver;

wherein transferring data units between program objects is accomplished by passing references pointing to memory locations of the data units.--

Claim 18 has been rewritten as follows:

--18. (Amended) Method for communication between a network device driver program and an application program through intermediate structure software, comprising the steps of:

- a. supplying of first data units from the network device driver program to a first program object or protocol object being part of the intermediate structure software;
- b. performing of first functions of the first program object on said first data units;
- c. supply of resulting second data units from the first program object to a second program object being part of the intermediate structure software;
- d. performing of second functions of the second program object on the second data units;
- e. supplying of resulting application data units from the second program object to said application program;

wherein supplying data units between program objects is accomplished by passing references pointing to memory locations of the data units.--

New claim 20 has been added as follows:

--20. (New) Method according to claim 10, wherein at least two of the data units of at least one service data unit are stored in non-contiguous portions of memory.--

New claim 21 has been added as follows:

--21. (New) Method according to claim 12, wherein the specialized execution environment forms a plurality of network protocol layers and the first program object and the second program object are in respective network protocol layers.--



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PATENT
450117-4840

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Yoeri Apts, et al.
Serial No. : 09/246,271
Filed : February 8, 1999
For : METHOD AND SYSTEM FOR COMMUNICATION BETWEEN APPLICATION PROGRAMS AND A NETWORK
Art Unit : 2151
Examiner : Ho, The T

745 Fifth Avenue
New York, NY 10151
Tel: 212-588-0800

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Transmitted herewith is an amendment in the above-identified application.

- ☐ No additional fee is required.
☒ The fee has been calculated as shown below.
☐ This is an application of a small entity under 37 CFR 1.9(f), and the amounts shown in parentheses apply.

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Claims as Amended

| (1) | (2) Claims remaining after amendment | (3) | (4) Highest number previously paid for | (5) Present extra | (6) Rate | (7) Additional Fee |
|---|---|-------|---|----------------------|-------------|-----------------------|
| Total claims | 21 | Minus | ** 20= | * 1x | \$18 (9) | = \$ 18 |
| Independent claims | | Minus | *** = | * x | \$84 (42) | = \$ |
| Total additional fee for this amendment | | | | | | \$ |

- * If the entry in Column 2 is less than the entry in Column 4, write "0" in Column 5.
** If the highest number of total claims previously paid for is less than 20, write "20" in this space.
*** If the highest number of independent claims previously paid for is less than 3, write "3" in this space.

- ☐ This application contains a multiple dependent claim. The required fee of \$280(140) has been previously paid ☐, or is paid herewith ☐.
- ☐ This response is being filed within the _____ month following the expiration of the term originally set therefor. This is a petition to request a _____ month extension of time. A check covering the cost of the petition is enclosed.
- X A check in the amount of \$18.00 is attached, which covers the cost of ONE additional claim(s) _____ petition for extension of time.
- ☐ Charge \$_____ to Deposit Account No. 50-0320.
- X Please charge any additional fees incurred by reason of this response or credit any overpayment to Deposit Account No. 50-0320.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents Washington, DC 20231, on September 10, 2002.

Hans R. Mahr, Reg. No. 46,138

Name of Applicant, Assignee or Registered Representative

Hans Mahr

Signature

September 10, 2002

Date of Signature

Respectfully submitted,

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